

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



Enter XX or Calendar Date

Mr. Archie Barron
Plant Manager
Meridian Brick LLC – Salisbury Facility
PO Box 1249
Salisbury, NC 28145

SUBJECT: Air Quality Permit No. 04034T23
Facility ID: 8000039
Meridian Brick LLC – Salisbury Facility
East Spencer, NC
Rowan County
Fee Class: Title V

Dear Mr. Barron:

In accordance with your completed Air Quality Permit Application for a renewal with completion of a significant (02Q .0501(b)(2)) modification to your Title V permit received May 24, 2019, we are forwarding herewith Air Quality Permit No. 04034T23 to Meridian Brick LLC – Salisbury Facility, 700 South Long Street, East Spencer, Rowan County, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Any increment changes associated with this modification were addressed in the Part 1 permit application (No. 8000039.18A).

This Air Quality Permit shall be effective from **(Permit Issuance Date)** until **(Permit Expiration Date)**, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Eric Crump at (919) 707-8470 or eric.crump@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Kelly Fortin, EPA Region 4 (Permit and review)
Mooresville Regional Office
Connie Horne (Cover letter only)
South Carolina DHEC/Air Quality
Forsyth County Office of Environmental Assistance
Central Files

ATTACHMENT to Permit No. 04034T23

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES-8A	One 30,000 gallon storage tank (additive A)
IES-8B	One 30,000 gallon storage tank (additive A)
IES-SBF	Sand Receiving Operations Fugitive Sources including: <ul style="list-style-type: none"> • Truck dumping • Seven Storage Bays • Front end loader to Receiving Hopper
IES-CHF	Clay Handling Operations Fugitive Sources including: <ul style="list-style-type: none"> • Truck dumping (IES-CHF-CHDUMP) • Apron Feeder (IES-CHF-CHAF) • Storage Pile (IES-CHF-CHPILE) • Four Hoppers (IES-CHF-CHHOP) • Two 36 inch Conveyors (IES-CHF-CHC1 and IES-CHF-CHC2)
IES-GR	Grinding and Screening Fugitive Sources including: <ul style="list-style-type: none"> • Two scalping screens (IES-GR-SS1 and GR-SS2) • Two grinders (IES-GR-#1INCLA and IES-GR-#2INCLA) • Ten finishing screens (IES-GR FS 1-10) • Eleven 24 inch conveyors (IES-GR-C4, IES-GR-C6-11, IES-GR-C13-16) • Two 36 inch conveyors (IES-GR-C5 and IES-GR-C12)
IES-SDF	Sawdust Screening, Conveying and Storage Fugitive sources including: <ul style="list-style-type: none"> • One wood hog dump pit (IES-SDF-1WHDP) • One sawdust storage silo (sawdust storage prior to drying) (IES-SDF-5) • One sawdust storage silo (sawdust storage prior to drying) (IES-SDF-6) • One sawdust storage silo located outside of mill room 6 (dried sawdust for brick tunnel kiln No. 6) (IES-SDF-7) • One green sawdust shaker screen on a wood hog dump pit (IES-SDF-1GSS)
IES-RCLF	Reclaim Storage System Fugitive Sources including: <ul style="list-style-type: none"> • Nineteen 24 inch conveyors (IES-RCLF-D, IES-RCLF-10-16, 20-23, 30-33, A, 1A, 2A) • Three 36 inch conveyors (IES-RCLF-E, G and H) • Three 18 inch conveyors (IES-RCLF-BLT-2, 3 and 4) • Two Reclaimers (IES-RCLF-RCL1 and RCL2) • Five Feeders (IES-RCLF-#2 - #6)
IES-T1	10,000 gallon diesel fuel storage tank
IES-T2	3,000 gallon gasoline storage tank
IES-T3	6,000 gallon diesel fuel storage tank
IES-BCM	Brick Cutting Machine
IES-PBC	Portable Brick Crushing Operation
IES-2 MACT ZZZZ	One natural gas-fired emergency generator (75 kilowatts) located at Plant No. 6
IES-3 MACT ZZZZ	One diesel-fired emergency generator (240 kilowatts) located at Plant No. 6

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows:
<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the Meridian Brick LLC – Salisbury Facility – East Spencer, Air Permit No. 04034T22:

Page No.	Section	Description of Changes
Cover and throughout	---	<ul style="list-style-type: none"> Updated all dates and permit revision numbers Changed all citations of 15A NCAC 2D to 15A NCAC 02D Changed all citations of 15A NCAC 2Q to 15A NCAC 02Q
3	1	<ul style="list-style-type: none"> Deleted “No. 6 wood” from description of Source ID No. 6BK in table Modified descriptions of rotary wood dryers 5WRD and 6WRD to include natural gas-fired burner Changed source ID No. for “Six dry storage bins” from “SB-STB” to “SB-STB1 through SB-STB6” Rearranged list of NSPS OOO-affected sources for screening and grinding operation ID No. 1GR Deleted dried sawdust storage silo (ID No. 5SILO) and associated baghouse from table
4	1	Deleted emergency generators (ID Nos. ES2 and ES3) from table
5	2.1 A	<ul style="list-style-type: none"> Deleted “wood” and “29,913 square feet of surface area,” from description of brick tunnel kiln (ID No. 6BK) Included both equations for particulate matter limit in limits/standards summary table Added the heading “<u>State Enforceable Only</u>” to summary of toxic air pollutant standards in limits/standards summary table Deleted “<i>***The facility shall discontinue wood firing in the kiln (ID No. 6BK) on or before December 25, 2018.</i>” Updated section to include the most current stipulations for 02D .0515
6	2.1 A.1.d.iii, e 2.1 A.2, 3	<p>Included cyclones with maintenance requirements</p> <p>Updated section to include the most current stipulations for 02D 0.516, and .0521</p>
7	2.1 A.3.c 2.1 A.4	<p>Removed monitoring, recordkeeping, and reporting requirements</p> <p>Deleted section, including 02Q .0504 requirements, and replaced with compliance assurance monitoring requirements (02D .0614)</p>

Page No.	Section	Description of Changes
8	2.1 B	<ul style="list-style-type: none"> Included both equations for particulate matter limit in limits/standards summary table Updated section to include the most current stipulations for 02D .0515 and .0521
	2.1 B.1.c	Changed “five bagfilters” to “four bagfilters”
	2.1 B.2.c.ii	Changed “02D .2601” to” 02D .2610”
10	2.1 C	Added source ID Nos. to table for clarity
	2.1 C.1	Updated section to include the most current stipulations for 02D .0516
	2.1 C.2	Updated section to include the most current stipulations for 40 CFR 60, Subpart UUU, including reordering of paragraphs a through d
11	2.1 C.2.g	Removed the words “particulate matter”, and changed reference to “40 CFR 60.732, see Section 2.1 D.2.a” to “Section 2.1 C.2.b”
	2.1 C.2.h, i	Changed “Section 2.1 C.2.a” to “Section 2.1 C.2.b”
12	2.1 D	<ul style="list-style-type: none"> Updated list of sources comprising sand conveying system No. 1 (ID No. 1SB) to be consistent with list of sources in Section 1 Revised summary of limits and standards table to clarify visible emission limits
	2.1 D.1.b	Changed “SB-C9 - C11” to “SB-C9 through SB-C11”
13	2.1 D.1.e, f	Updated section to include the most current stipulations for 40 CFR 60, Subpart OOO
	2.1 E	Edited title of section
14	2.1 E.1.e, f	Updated section to include the most current stipulations for 40 CFR 60, Subpart OOO
15-16	2.1 F.1.e, f	Updated section to include the most current stipulations for 40 CFR 60, Subpart OOO
16	2.1 G, H	Deleted sections G and H (emergency engines ES-2 and ES-3 are now insignificant activities)

Page No.	Section	Description of Changes
17	2.2 A.1.b.i	Combined i. into paragraph b
	2.2 A.1.b.ii	Deleted subparagraph starting with the sentence “Wood firing shall be discontinued in the kiln(6BK) on or before December 25, 2018.”
	2.2 A.1.d	Included reference to updated hydrogen fluoride emission factor. Inserted historical date for compliance with 02Q .0317
	2.2 B.1.a	
18	2.2 B.1.b	Replaced testing requirement for brick kiln (ID No. 6BK) with new paragraph b establishing lime feed rate for the dry lime injection fabric filter (ID No. DIFF1). Redesignated paragraphs b through g as paragraphs c through h.
	2.2 B.2.c	Updated emission factors for HF and HCl.
	2.2 B.2.e.iii	Deleted duplicate paragraph
	2.2.B.2.h	Updated paragraph to most current stipulations for reporting requirements
19-29	3	Updated General Conditions to Version 5.4 dated July 20, 2020



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
04034T23	04034T22	XXXX*	XXXX**

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: Meridian Brick LLC – Salisbury Facility
Facility ID: 8000039

Facility Site Location: 700 South Long Street
City, County, State, Zip: East Spencer, Rowan County, North Carolina 28039

Mailing Address: PO Box 1249
City, State, Zip: Salisbury, North Carolina 28145

Application Number: 8000039.19A
Complete Application Date: May 24, 2019

Primary SIC Code: 3251
Division of Air Quality,
Regional Office Address: Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, North Carolina 28115

Permit issued this the XX day of XXXXX, 2020

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCE (S) AND ASSOCIATED
AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1 Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2 Multiple Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Brick Tunnel Kilns				
5 - 7 and 25 - 27	6BK MACT JJJJ	One natural gas/propane/No. 2 fuel oil-fired brick tunnel kiln (80 million Btu per hour heat input, 35.6 tons per hour green brick capacity, 27.8 tons per hour fired brick capacity)	DIFF1	Dry lime injection fabric filter (29,913 square feet of surface area)
5 - 7 and 25 - 27	5RWD	One No. 5 rotary wood dryer (5,000 pounds per hour capacity) with natural gas-fired burner (16.5 million Btu per hour)* *Natural gas burner can fire either rotary dryer No. 5 or No. 6	C5RWD-1	One cyclone (90 inches in diameter)
5 - 7 and 25-27	6RWD	One No. 6 rotary wood dryer (7,500 pounds per hour capacity) with natural gas-fired burner (16.5 million Btu per hour)* *Natural gas burner can fire either rotary dryer No. 5 or No. 6	C6RWD-1	One cyclone (90 inches in diameter)
Sand Processing and Conveying System – Building 14				
9 - 11	1RSD NSPS UUU	One natural gas-fired rotary sand dryer (10 million Btu per hour, 20.0 tons of wet sand per hour capacity) and	C1RSD	One cyclone (72 inches in diameter)
9 - 11	1SHM NSPS OOO	One sand hammermill	BF1RSD-1	One baghouse (638 square feet of filter area)
12 - 13	1SB NSPS OOO	One sand conveying system No. 1 including: <ul style="list-style-type: none"> Eighteen 24 inch conveyors (SB-C0 through SB-C7, SB-C9 through SB-C11, SB-C2A, and SB-FC1A-FC6A) Bypass screen (SB-BYSC) Shaker screen (SB-SS) Six dry storage bins (SB-STB1 through SB-STB6) Ribbon Mixer (SB-RM) 	BF1SB-1	One baghouse (5,245 square feet of filter area)
Wood Fuel/ Sawdust System				
7 - 9	1WH	One green sawdust grinding and storage operation	C1WH-1	One cyclone (105 inches in diameter)
	5DSS	One No. 5 dried sawdust shaker screen (7,500 pounds per hour capacity) and	C5HM	One cyclone (60 inches in diameter)
	5HM	One No. 5 dried sawdust hammermill (7,500 pounds per hour capacity)	BF5DSS-1	One baghouse (383 square feet of filter area)
	6SILO	One dried sawdust storage silo	BF6SILO-1	One baghouse (908 square feet of filter area)
Clay Handling Equipment (400 tons per hour) – Building 15				

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
13 - 14	1PC NSPS OOO	One primary crusher (400 tons per hour capacity)	N/A	N/A
	CH-Incline NSPS OOO	One 30 inch incline conveyor	N/A	N/A
	CH-Crossover NSPS OOO	One 30 inch crossover conveyor	N/A	N/A
	CH-Shuttle NSPS OOO	One 30 inch shuttle conveyor	N/A	N/A
Grinding and Screening Operations (300 tons per hour) – Building 11				
15 - 16	1GR NSPS OOO	One screening and grinding operation (300 tons per hour capacity) containing the following NSPS OOO affected sources: -30 inch conveyor (GR-C3) -Finishing screens (GR-FS#11 and GR-FS#12) -Hammermill (GR-HM) -24 inch conveyors (GR-C17, GR-C19, and GR-Shuttle) -36 inch conveyors (GR-C18 and GR-CL) -42 inch conveyors (GR-CI and GR-CK)	N/A	N/A
Making Rooms				
7 - 9	6MR	One brick sand coating operation located in Mill Room No. 6	BF6MR-1	One baghouse (5.245 square feet of filter area)

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. One natural gas/propane/No. 2 fuel oil-fired brick tunnel kiln (ID No. 6BK) with associated dry lime injection fabric filter (ID No. DIFF1)

Two rotary drum wood dryers (ID Nos. 5RWD and 6RWD), with associated cyclones (ID No. C5RWD-1 and C6RWD-1)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ (for process rates ≤ 30 tons/hour) $E = 55.0 \times P^{0.11} - 40$ (for process rates > 30 tons/hour) Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Toxic air pollutants	State-enforceable only Limit the toxic air pollutants to less than respective limits. Exemption to bypass control device and continue operation of kiln for up to 4 percent of kiln annual operation (350 hours) See Section 2.2 A	15A NCAC 02D .1100 15A NCAC 02Q .0711
Hazardous air pollutants	See Section 2.2 B	15A NCAC 02Q .0317 Avoidance of 15A NCAC 02D .1111

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from brick tunnel kiln (**ID No. 6BK**) and two rotary drum wood dryers (**ID Nos. 5RWD and 6RWD**) shall not exceed an allowable emission rate calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 * (P)^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from brick tunnel kiln (**ID No. 6BK**) shall be controlled by bagfilter (**ID No. DIFF1**) and particulate matter emissions from rotary drum wood dryers (**ID Nos. 5RWD and 6RWD**) shall be controlled by two cyclones (**ID Nos. C5RWD-1 and C6RWD-1**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork, bagfilter and cyclones for leaks, holes, or disrepair;
 - an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity; and
 - every six months, perform a visual inspection of brick tunnel kiln fuel combustion system.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork, bagfilter and cyclones are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of each recorded action;
 - the results of each inspection;
 - the results of any maintenance performed on any control device; and
 - any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 A.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the brick tunnel kiln (**ID No. 6BK**) and rotary drum wood dryers (**ID Nos. 5RWD and 6RWD**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas/propane/No. 2 fuel oil in these sources (**ID Nos. 6BK, 5RWD, and 6RWD**) .

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from brick tunnel kiln (**ID No. 6BK**) and the two rotary drum wood dryers (**ID Nos. 5RWD and 6RWD**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas/propane/No. 2 fuel oil in these sources (**ID Nos. 6BK, 5RWD, and 6RWD**).

4. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. Per 40 CFR 64 and 15A NCAC 02D .0614, the Permittee shall comply with the following compliance assurance monitoring (CAM) requirements.

b. Background**i. Emission Unit(s).**

(A) Description: one natural gas/propane/No. 2 fuel oil-fired brick tunnel kiln

(B) Identification: **ID No. 6BK**

ii. Applicable Regulation, Emission Limit, and Monitoring Requirements

(A) Regulations: 15A NCAC 02D .0317 - Avoidance of 15A NCAC 02D .1111 (**ID No. 6BK**)

(B) Emission limits: facility emissions shall be less than:

(1) 10 tons per year of each hazardous air pollutant, and

(2) 25 tons per year of all hazardous air pollutants combined.

(C) Control Technology: associated dry lime injection fabric filter (**ID No. DIFF1**)

Monitoring [15A NCAC 02Q .0508(f)]

- c. The Permittee shall monitor the following:

- i. the lime feeder setting for the dry lime injection fabric filter (**ID No. DIFF1**) daily to ensure the feeder setting is operated at or above the lime injection rate of 80 pounds per hour, and
- ii. the lime system daily to ensure that the lime fed to the dry lime injection fabric filter is free flowing.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each inspection;
- iii. the results of any maintenance performed on any control device; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614 if records of the monitoring results are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit, in writing a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.4.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. One green sawdust grinding and storage operation (ID No. 1WH) with associated cyclone (ID No. C1WH-1)

One No. 5 dried sawdust hammermill (ID No. 5HM) and One No. 5 dried sawdust shaker screen (ID No. 5DSS) with associated cyclone (ID No. C5HM) and associated baghouse (ID No. BF5DSS-1)

One dried sawdust storage silo (ID No. 6SILO) with associated baghouse (ID No. BF6SILO-1)

One brick sand coating operation (ID No. 6MR) with associated baghouse (ID No. BF6MR-1)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
---------------------	------------------	-----------------------

Particulate matter	$E = 4.10 \times P^{0.67}$ (for process rates ≤ 30 tons/hour) $E = 55.0 \times P^{0.11} - 40$ (for process rates > 30 tons/hour) Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. 1WH, 5HM, 5DSS, 6SILO, and 6MR**) shall not exceed an allowable emission rate as calculated by the following equations:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources shall be controlled by four bagfilters (**ID Nos. BF5DSS-1, BF6SILO-1, and BF6MR-1**) and two cyclones (**ID Nos. C1WH-1 and C5HM**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork, bagfilters, and cyclones for leaks; and
 - an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 above if any ductwork, cyclones or bagfilters are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- the date and time of each recorded action;
 - the results of each inspection;
 - the results of any maintenance performed on any control device; and
 - any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if records of the monitoring results are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit, in writing a summary report of the monitoring and recordkeeping activities given in Sections 2.1 B.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. 1WH, 5HM, 5DSS, 6SILO, and 6MR**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20

percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct above-normal emissions as soon as practicable and within monitoring period and record action taken as provided in recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.2.a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required monthly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period, or the percent opacity demonstration cannot be made.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. One natural-gas fired Rotary Sand Dryer (ID No. 1RSD) and one sand hammermill (ID No. 1SHM) and associated cyclone (ID No. C1RSD) and bagfilter (ID No. BF1RSD-1)

The following table provides a summary of limits and/or standards for the sources listed above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	(ID No. 1RSD only) 2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Particulate matter	(ID No. 1RSD only) Potential emissions of particulate matter from the sand drying operation shall not exceed 0.057 g/dscm (0.025 gr/sdcf)	15A NCAC 02D .0524 40 CFR 60.730, Subpart UUU
Visible emissions	(ID No. 1RSD only) 10 percent opacity	
Particulate matter	(ID No. 1SHM only) Potential emissions of particulate matter from a control device shall not exceed 0.05 g/dscm (0.022 gr/scf)	15A NCAC 02D .0524 40 CFR 60.670, Subpart OOO
Visible emissions	(ID No. 1SHM only) 7 percent opacity	

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the rotary sand dryer (ID No. 1RSD) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this source (ID No. 1RSD).

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS for 40 CFR 60 Subpart UUU STANDARDS OF PERFORMANCE FOR CALCINERS AND DRYERS IN MINERAL INDUSTRIES

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart UUU, including Subpart A "General Provisions."

Emission Limitations

- b. As required by 40 CFR 60.732, on and after the date on which the performance test required to be conducted by 40 CFR 60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first, no emissions shall be discharged into the atmosphere from the sand dryer (ID No. 1RSD) controlled by cyclone (ID No. C1RSD) and one bagfilter (ID No. BF1RSD-1) that:
- Contains particulate matter in excess of 0.057 grams per dry standard cubic meter (g/dscm) [0.025 grams per dry standard cubic foot (gr/dscf)] for dryers; and;
 - Exhibits greater than 10 percent opacity.
- c. As required by 40 CFR 60.11(c), the opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- d. As required by 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on available information which may include, but is not limited to, monitoring results, opacity observations, review of

operating and maintenance procedures, and inspection of the source.

Testing [15A NCAC 02Q .0508(f)]

- e. If emissions testing is required, the testing shall be performed in accordance with the requirements of 15A NCAC 02D .0524 (40 CFR 60.730, Subpart UUU) and General Condition JJ. If the test results exceed the applicable limits given in Section 2.1 C.2.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
- f. In conducting the performance tests required by 40 CFR 60.8, the Permittee shall use as reference methods and procedures, the test methods in 40 CFR Part 60, Appendix A or other methods and procedures as specified in this section, except as provided in 40 CFR 60.8(b).
- g. In determining compliance with the standards in Section 2.1 C.2.b above, the Permittee shall determine compliance as follows:
 - i. 40 CFR Part 60, Appendix A, Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.
 - ii. 40 CFR Part 60, Appendix A, Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity from stack emissions.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- h. In order to ensure compliance with Section 2.1 C.2.b above, the Permittee shall comply with Section 2.1.C.3.d and e, respectively below.

Reporting [15A NCAC 02Q .0508(f)]

- i. In order to ensure compliance with Section 2.1 C.2.b above, the Permittee shall comply with Section 2.1.C.3.f below.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS for 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS.

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

Emission Standard(s) [15A NCAC 02D .0524]

- b. For the NSPS affected hammermill (**ID Nos. 1SHM**), with emissions controlled by fabric filter (**ID No. BF1RSD-1**), the Permittee shall meet the requirements of this Subpart by demonstrating compliance with the 40 CFR 60.672(a) limit of 0.05 grams of particulate matter per dry standard cubic meter and 7 percent opacity from the vented fabric filter (**ID No. BF1RSD-1**).

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with the requirements of 15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO) and General Condition JJ. If test results exceed the applicable limit(s) given in Section 2.1 C.3.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

- d. After the initial performance test required under 40 CFR 60.670, to ensure compliance of the fabric filter (**ID No. BF1RSD-1**) with the applicable emissions standard(s) of Section 2.1 C.2.a and 2.1 C.3.a above, the Permittee shall observe the exhausts of the fabric filter each month for any visible emissions which exceed normal. Should monthly observed emissions from the fabric filter exceed the established normal visible emissions, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524, **UNLESS** a compliance demonstration is performed following an approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 02D .2601 for the fabric filter and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672 (a). If compliance for the fabric filter cannot be demonstrated, then each affected facility shall be deemed be in noncompliance with 15A NCAC 02D .0524.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. Results of monitoring shall be maintained in a logbook (written or electronic form). The following shall be recorded in the logbook:
 - i. The results of the observation to establish normal emissions,
 - ii. The results of the monthly fabric filter emissions observations,

- iii. The date and time of each observation,
- iv. If any emissions observed from the fabric filter exceeded "normal," the time and any resulting action(s) taken to reduce emissions exceeding an applicable limit, and
- v. The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9 opacity testing performed for the purpose of demonstrating compliance with the applicable emissions limit(s).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a written summary report of the monitoring and recordkeeping activities as follows:
 - i. A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and recordkeeping, including existing equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
 - ii. A summary report of the monitoring and record keeping activities in Sections 2.1 C.3.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
 - iii. A report of any non-complying emissions for all emissions which exceed the applicable opacity limit(s) of 40 CFR 60.672(a) as established using Method 9 compliance demonstrations conducted on an affected facility along with the determined cause of exceedance and the resulting corrective action taken.

D. One sand conveying system No. 1 (ID No. 1SB) consisting of:

One bypass screen (SB-BYSCR)

One shaker screen (SB-SS)

Six storage bins (SB-STB1 through SB-STB6)

Eighteen conveyors (ID Nos. SB-C0 through SB-C7, SB-C9 through SB-C11, SB-C2A, and SB-FC1A through FC6A), and

One ribbon mixer (SB-RM)

with associated fabric filter (ID No. BF1SB-1)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.05 grams per dry standard cubic meter	15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO)
Visible emissions	7 percent opacity	15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO)

1. 15A NCAC 02D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS.

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

Emission Standard(s) [15A NCAC 02D .0524]

- b. For the NSPS affected conveyers (**ID Nos. SB-C0 through SB-C7 and SB-C9 through SB-C11**), the NSPS affected screens (**ID Nos. SB-BYPASS and SB-SS**), with emissions controlled by fabric filter (**ID No. BF1SB-1**), the Permittee shall meet the requirements of this Subpart by demonstrating compliance with the 40 CFR 60.672(a) limit of 0.05 grams of particulate matter per dry standard cubic meter and 7 percent opacity from the vented fabric filter (**ID No. BF1SB-1**).

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with the requirements of 15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO) and General Condition JJ. If test results exceed the applicable limit(s) as given in Section 2.1 D.1.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

- d. After the initial performance test required under 40 CFR 60.670, the Permittee shall observe the exhausts of the fabric filter (**ID No. BF1SB-1**) each month for any visible emissions which exceed normal. Should monthly observed emissions from the fabric filter exceed the established normal visible emissions, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524, **UNLESS** a compliance demonstration is performed following an approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 02D .2601 for the fabric filter and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(a). If compliance for the fabric filter cannot be demonstrated, then each affected facility shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. Results of monitoring shall be maintained in a logbook (written or electronic form). The following shall be recorded in the logbook:
- The results of the observation to establish normal emissions,
 - The results of the monthly fabric filter emissions observations,
 - The date and time of each observation,
 - If any emissions observed from the fabric filter exceeded "normal," the time and any resulting action(s) taken to reduce emissions exceeding an applicable limit, and
 - The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9 opacity testing performed for the purpose of demonstrating compliance with the applicable emissions limit(s).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a written summary report of the monitoring and recordkeeping activities as follows:
- A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and record keeping, including existing equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
 - A summary report of the monitoring and recordkeeping activities in Section 2.1 D.1.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
 - A report of any non-complying emissions for all emissions which exceed the applicable opacity limit(s) of 40 CFR 60.672(a) as established using Method 9 compliance demonstrations conducted on an affected facility along with the determined cause of exceedance and the resulting corrective action taken.

E. One primary crusher (ID No. 1PC)**Three conveyors (ID Nos. CH-Incline, CH-Crossover and CH-Shuttle)**

The following table provides a summary of limits and/or standards for the clay crushing, grinding, and screening emission units.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	10 percent opacity for the conveyors and 15 percent opacity for the crusher, OR 7 percent opacity from the building openings	15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO)

1. 15A NCAC 02D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS.

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

Emission Standard(s) [15A NCAC 02D .0524]

- b. For the NSPS affected conveyors (**ID Nos. CH-Incline, CH-Crossover and CH-Shuttle**) subject to the 10 percent opacity limit, and for the NSPS affected crusher (**ID No. 1PC**) subject to a 15 percent opacity limit, the Permittee

shall meet the requirements of this Subpart by demonstrating compliance with 40 CFR 60.672(b), and (c) for each individual affected facility OR by complying with the 40 CFR 60.672(e)(1) fugitive emissions limit of 7 percent opacity from the building openings (Building No. 15).

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with the requirements of 15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO) and General Condition JJ when determining compliance of each individual affected facility with 40 CFR 60.672 (b) or when determining compliance at the building openings as listed in 40 CFR 60.672(e)(1). If test results exceed the applicable limit(s) as given in Section 2.1 E.1.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

- d. Monitoring to ensure compliance with the applicable emissions standard(s) of Section 2.1 E.1.b of this permit shall be performed by the Permittee as follows:
- After the initial performance test required under 40 CFR 60.670, the Permittee shall observe each individual affected facility enclosed in Building 15 or the building openings each month for any visible emissions which exceed "normal". In the event normal must be re-established, the Permittee shall establish "normal" emissions by observing each week for 30 days the emissions from each enclosed affected facility or the building openings. Should monthly observed emissions of an enclosed affected facility or the building openings exceed the established normal visible emissions for that affected facility or the building openings, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524, UNLESS,
 - An approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO) is performed for each enclosed affected facility or the building openings and visible emissions are demonstrated to comply with the applicable limit given in 60.672(b) or (e)(1). If the opacity exceeds the emission standard in Section 2.1 E.1.b above, then the affected facility shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the visible emissions are not monitored as described above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. Results of monitoring shall be maintained in a logbook (written or electronic form). The following shall be recorded in the logbook:
- The results of the Permittee's observations to establish normal and a description of the specific emission points;
 - The results of the Permittee's monthly opacity emissions observations for each affected facility or the building openings;
 - The observations to establish normal should be recorded for each affected facility within the building or the building openings;
 - Whether the observed emissions source was the building or each affected facility within the building, the date and time of each observation, and
 - If any emissions observed exceeded normal, the time and any resulting action(s) taken to reduce emissions exceeding an applicable limit;
 - The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9, along with the determined cause of exceedance and the resulting corrective action taken.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a written summary report of the monitoring and recordkeeping activities as follows:
- A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and record keeping, including existing equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
 - A summary report of the monitoring and recordkeeping activities in Sections 2.1 E.1.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
 - A report of any non-complying emissions for all emissions which exceed the no visible emission limit of 40 CFR 60.672(b) or (e)(1) as established using Method 9, along with the determined cause of exceedance and the resulting corrective action taken.

F. One screening and grinding operation (ID No. 1GR) consisting of:

- One 30 inch conveyor (GR-C3)
- Three 24 inch conveyors (GR-C17, GR-C19, and GR-Shuttle)
- Two 36 inch conveyors (GR-C18 and GR-CL)
- Two 42 inch conveyors (GR-CI and GR-CK)
- Two Finishing screens (GR-FS#11 and GR-FS#12)
- One Hammermill (GR-HM)

The following table provides a summary of limits and/or standards for the clay crushing, grinding, and screening emission units:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	10 percent opacity for the conveyors, hammermill and screens OR 7 percent opacity from the building openings	15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO)

1. 15A NCAC 02D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

Emission Standard(s) [15A NCAC 02D .0524]

- b. For the eight NSPS affected conveyers (**ID Nos. GR-C3, GR-C17 through GR-C19, GR-Shuttle, GR-CI, GR-CK, GR-CL**), two finishing screens (**ID Nos. GR-FS#11 and FS#12**), and one hammermill (**ID No. GR-HM**) subject to the 10 percent opacity limit, the Permittee shall meet the requirements of this Subpart by demonstrating compliance with 40 CFR 60.672(b) for each individual affected facility OR by complying with the 40 CFR 60.672(e)(1) fugitive emissions limit of 7 percent opacity from the buildings' openings (Building 11).

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with the requirements of 15A NCAC 02D .0524 (40 CFR 60.670, Subpart OOO) and General Condition JJ. If test results exceed the applicable limit(s) as given in Section 2.1 F.1.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring [15A NCAC 02Q .0508(f)]

- d. Monitoring of each affected conveyor to ensure compliance with the applicable emissions standard(s) of 2.1 F.1.b above shall be performed by the Permittee as follows:
- i. After the initial performance test required under 40 CFR 60.670, the Permittee shall observe each individual affected facility or the building openings each month for any visible emissions which exceed "normal". In the event normal must be re-established, the Permittee shall establish "normal" emissions by observing each week for 30 days the emissions from each enclosed affected facility or the building openings. Should monthly observed emissions of an enclosed affected facility or the building openings exceed the established normal visible emissions for that affected facility or the building openings, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524,
 - ii. An approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 02D .2601 is performed for each affected facility and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(b). If compliance for the affected facility cannot be demonstrated, then the affected facility shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. Results of monitoring shall be maintained in a logbook (written or electronic form). The following shall be recorded in the logbook:
- i. The results of the observation to establish normal emissions;

- ii. The results of the monthly visible emissions observations for each affected facility,
- iii. The observation to establish normal should be recorded for each affected facility,
- iv. The date and time of each observation, and
- v. The time and any resulting action(s) taken to reduce emissions exceeding an applicable limit, and
- vi. The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9 opacity testing performed for the purpose of demonstrating compliance with the applicable emissions limit.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a written summary report of the monitoring and recordkeeping activities as follows:
 - i. A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and recordkeeping, including existing equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
 - ii. A summary report of the monitoring and recordkeeping activities in Sections 2.1 F.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
 - iii. A report of any non-complying emissions for all emissions which exceed the applicable opacity limit of 40 CFR 60.672(b) as established using Method 9 compliance demonstrations conducted on an affected facility, along with the determined cause of exceedance and the resulting corrective action taken.

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

A. FACILITY-WIDE EMISSIONS

State-enforceable only

1. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT

15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

Pursuant to 15A NCAC 02Q .0711, Meridian Brick LLC – Salisbury Plant shall be operated and maintained in such a manner that emissions of any listed toxic air pollutants from the facility, including fugitive emissions, will not exceed the “Emission Rates Requiring A Permit” specified in 15A NCAC 02Q .0711 or will be in compliance with modeled emission rates pursuant to 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” and in accordance with the application from this facility for a facility-wide air toxics compliance demonstration that was approved by the Division of Air Quality on March 5, 2018.

- a. Uncontrolled Control Device Bypass Exemption: For North Carolina State Air Toxics purposes, the facility is allowed to bypass the control device and continue operation of the kiln for up to 4% of the annual operating time (350 hours) of the kiln. Normal operation of the kiln is 24 hours per day, 365 days per year (8760 hours).
- b. The following permit limits shall not be exceeded from the brick tunnel kiln (**ID No. 6BK**) exhaust or from the rotary wood dryers (**ID No(s). 6RWD or 5RWD**):

EMISSION SOURCE	TOXIC AIR POLLUTANT	EMISSION LIMIT
Brick Tunnel Kiln (6BK) controlled by dry lime injection fabric filter (DIFF1)	Benzene	9385.71 lb/yr
	Di(2-ethylhexyl)phthalate	714.49 lb/day
	Hydrogen Fluoride	70.37 lb/hr
		714.49 lb/day
Rotary Wood Dryer (6RWD1 or 5RWD1)	Benzene	882.95 lb/yr

To ensure compliance with the above limits, only one of the wood dryers (**5RWD1 or 6RWD1**) shall operate at one time.

- c. For compliance purposes, the Permittee shall maintain records of operation for the kiln (**6BK**), dry limestone fabric filter (**DIFF1**) [noting bypass time as well], and rotary wood dryers (**5RWD1 and 6RWD1**) and make those available to Division of Air Quality during inspections upon request.
- d. For compliance purposes, the Permittee shall utilize the hydrogen fluoride emission factor developed during the July 23, 2019 compliance test that was approved by the DAQ. For the other toxic air pollutants, the Permittee shall utilize the emission factors and calculations used with the approved application this facility submitted to the DAQ on January 12, 2018 for a facility-wide air toxics compliance demonstration until the kiln (**6BK**) with associated dry lime injection fabric filter (**DIFF1**) is tested again and those results approved by Division of Air Quality. As a result, the Permittee may be required to submit a permit modification at that time to ensure facility-wide air toxics compliance.

B. Facility-wide affected emission sources

Table 2.2 B The above emission sources are subject to this multiple emission source limit:

Regulated Sources	Limits/Standards	Applicable Regulation
Tunnel kiln (ID No. 6BK) and wood dryers (ID Nos. 5RWD1 and 6RWD1)	less than 10 tons per year of any HAP and less than 25 tons per year of a combination of HAPs	15A NCAC 02Q .0317

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. In order to be classified a minor source for hazardous air pollutants and avoid applicability of this regulation, beginning on December 26, 2018 facility emissions shall be less than:
 - i. 10 tons per year of each hazardous air pollutant, and
 - ii. 25 tons per year of all hazardous air pollutants combined.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the hazardous air pollutants (HAP) emissions exceed these limits.

- b. The Permittee shall use a feed rate of 80 pounds of lime per hour for the dry lime injection fabric filter (**ID No. DIFF1**) during brick production in the kiln (**ID No. 6BK**).
- c. The Permittee shall use the following equations to calculate the HAP emissions:

Controlled HF Emissions (ton/yr) = [TP (ton/yr) × cHFef (lbHF/ton) × 1 ton/2000 pounds]

Controlled HCl Emissions (ton/yr) = [TP (ton/yr) × cHClef (lbHCL/ton) × 1 ton/2000 pounds]

Other HAP Emissions (ton/yr) = [TP (ton/yr) × {uHAPef + cMHAPef} (lbHAP/ton) × 1 ton/2000 pounds]

Where:

TP = Total Production (tons/yr)

cHFef = Controlled HF Emission Factor (lbHF/ton) = 6.73 E-2 lbHF/ton brick*

cHClef = Controlled HCl Emission Factor (lbHCL/ton) = 1.63 E-2 lbHCL/ton brick*

uHAPef = Uncontrolled HAP Emission Factor (lbHAP/ton)* (AP-42 11.3)

cMHAPef = Controlled Metal HAP Emission Factor (lbHAP/ton)* (AP-42 11.3 and 99% DIFF control)

* The emission factors are from the approved compliance test that was conducted on July 23, 2019.

Testing Requirements [15A NCAC 02Q .0508(f)]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

Monitoring/Recordkeeping Requirements [15A NCAC 02Q .0508(f)]

- e. The Permittee shall maintain monthly total production records of the bricks fired containing hazardous air pollutants (HAP) as follows:
 - i. quantity of hazardous air pollutants in tons emitted on individual equipment (**ID No. 6BK**) and for the plant each month and for the 12-month period ending on that month,
 - ii. quantity of hazardous air pollutants in tons emitted by the plant each month and for the 12-month period ending on that month,
- f. The Permittee shall maintain a record of the amount of materials such as body additives and coating materials containing hazardous air pollutants on a monthly basis. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these HAP emissions are not monitored or records are not maintained.
- g. The Permittee shall keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source becomes an affected source. The determination must include the analysis demonstrating why the Permittee believes the source is unaffected pursuant to §63.10(b)(3). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records are not maintained.

Reporting Requirements [15A NCAC 02Q .0508(f)]

- h. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Sections 2.2 B.1.e through g above. The report shall summarize emissions of hazardous air pollutants containing the following:
 - i. greatest quantity in pounds of an individual hazardous air pollutant used:
 - (A) for each month during the semiannual period, and
 - (B) for each 12-month period ending on each month during the semiannual period using a 12-month rolling total;
 - ii. pounds of all hazardous air pollutants used:
 - (A) for each month during the semiannual period, and
 - (B) for each 12-month period ending on each month during the semiannual period using a 12-month rolling total.

SECTION 3 - GENERAL CONDITIONS (version 5.5, 08/25/2020)

This section describes terms and conditions applicable to this Title V facility.

A. General Provisions [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. Permit Availability [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. Severability Clause [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. Submissions [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NO_x budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q .0524 and 02Q .0505.

3. Minor Permit Modifications [15A NCAC 02Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.

4. Significant Permit Modifications [15A NCAC 02Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.

5. Reopening for Cause [15A NCAC 02Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]

- a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
- b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;

- ii. the changes do not cause the allowable emissions under the permit to be exceeded;
- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
- iv. the Permittee shall attach the notice to the relevant permit.
- c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
- d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
- 3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
- 4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

- 1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
- 2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In

either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or

interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible

emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
PM_{2.5}	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound